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EXAMINER	
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ART UNIT	PAPER NUMBER
2644	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/659,693	SUTARDJA, SEHAT	
	Examiner	Art Unit	
	Andrew C. Flanders	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23,25,26,28-48,97-112 and 169-172* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23,25,26,28-48,97-112 and 169-172* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 12 December 2005 regarding the claims have been fully considered but they are not persuasive.

Applicant alleges:

> "It is respectfully submitted that nowhere does Birrell teach the feature of a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in a storage device and a digital signal processor to decompress the compressed media data stored in a memory. In particular, nowhere does Birrell teach that any of the "control programs" executed by the data processor 102 includes a storage controller to retrieve the compressed media data stored in a storage device, as recited in, for example, independent claim 1 of the present invention. For at least these reasons, it is respectfully submitted that Birrell does not anticipate the subject matter of independent claim 1."

Examiner respectfully disagrees. Applicant first alleges that the CPU (i.e. programmable processor) taught by Birrell is not programmed as a storage controller. As shown in the previous rejection and current rejection, the play produce control program, executed by the processor, transfers data from the disk to the RAM. By doing so, it controls the hard disk and thus is programmed as a storage controller to retrieve the compressed media data.

Secondly, Applicant alleges that the CPU taught by Birrell is not programmed as a digital signal processor to decompress the compressed media data. As shown in the previous rejection and current rejection, Birrell discloses that the processor includes a decompression procedure for decompressing compressed audio files. These audio files

are stored in a digital format and the processor operates on them digitally to perform the decompression. As such, it is programmed as a digital signal processor.

Applicant further alleges:

> "It is respectfully submitted that the Patent Office has failed to apply the correct test for utility required under 35 U.S.C. 101, i.e., the practical application test set forth in State Street Bank. It is respectfully submitted that claim 172 is directed to a computer program for playing and recording media data from a media player/recorder that produces a useful, concrete and tangible result by "c) outputting the first portions of the at least one of the plurality of sections of the media data from the memory, wherein when a user selects a particular one of said plurality of selections, then retrieving a remaining portion of the particular one of said plurality of selections and then outputting a the portion and remaining portion the particular one of said plurality of selections"

Examiner respectfully disagrees. As a first note the rejection stated previously was made [19 September 2005] using the old guidelines. The new guidelines were issued on 26 October 2005. In the present test under the new guidelines, the claim still fails to claim statutory subject matter.

Applicant acknowledges that the claim is directed toward a computer program. Thus, Applicant is aware of the fact that the claim is directed to an abstract idea. Using the test, after determination that an abstract idea is claimed, it is necessary to determine whether the claim is for a practical application. The two ways of showing practical Application are identified by

1.) "The claimed invention 'transforms' an article of physical object into a different state or thing" or;

2.) "The claimed invention otherwise produces a useful, concrete and tangible result.

Element 1.) does not apply as there is no transformation. As to element 2.), Applicant points to pages 19 – 22 of the interim guidelines to show that

"c) outputting the first portions of the at least one of the plurality of sections of the media data from the memory, wherein when a user selects a particular one of said plurality of selections, then retrieving a remaining portion of the particular one of said plurality of selections and then outputting a the portion and remaining portion the particular one of said plurality of selections"

disclose a useful, concrete and tangible result.

In the instant case, there is no practical application from the claimed output. Examiner points to page 21 of the interim guidelines which states:

"Likewise, a claim that can be read so broadly as to include statutory and nonstatutory subject matter must be amended to limit the claim to a practical application. In other words, if the specification discloses a practical application of a § 101 judicial exception, but the claim is broader than the disclosure such that it does not require a practical application, then the claim must be rejected."

In the instant case, the term output can be read either broadly as merely just an output with no physical real world application, or as it appears Applicant would like it to be read which Examiner believes from the specification page 6 in which it states;

"If the analog signal contains audio data, output circuit 216 is connected to a speaker, headphone and the like for playback, and if the analog signal contains video data, output circuit 216 is connected to a display device for playback."

However, since these limitations are not present in the claims, the output of the program as claimed does not provide a practical application as it is lacking in the means necessary.

Applicant Alleges:

> "With respect to the rejection of claims 169-172, it is respectfully submitted that nowhere does Birrell teach the features of a processor to transfer first portions of at least one of the plurality of selections of the media data from said storage device to said memory; and an output device, wherein said output device outputs the first portions of the at least one of the plurality of sections of the media data from the memory, and wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion the particular one of said plurality of selections, as recited in, for example, independent claim 169 of the present application."

Applicant substantiates this allegation by stating:

> "Thus, according to Birrell, data is merely transferred from disk 104 to RAM 108 to replenish the RAM 108 when the amount of data in RAM 108 falls below the "low water mark." It is respectfully submitted that nowhere does Birrell teach the feature of the processor retrieving a remaining portion of the particular one of the plurality of selections and the output device outputs the portion and remaining portion of the particular one of said plurality of selections, when a user selects a particular one of

> said plurality of selections. Birrell merely teaches that the R.AM 108 is replenished when the amount of data in RAM 108 falls below a predetermined threshold. For at least these reasons, it is respectfully submitted that Birrell does not anticipate the subject matter of independent claim 169."

Examiner respectfully disagrees. Birrell does in fact teach these limitations. The initial transfer of data to break the "low water mark" is considered to be the first portion of at least one of the plurality of selections. Thus, if for example, the low water mark is set at 500 KB, the system will read data from the drive into RAM until the low water mark is broken. At this point one portion of the at least one selection is transferred. Therefore the processor transfers first portions (i.e. the initial amount to break the low water mark) of at least one of the plurality of selections of the media data from said storage device to said memory (i.e. play control logic, executed by the CPU, transfers the data from the storage device to the RAM).

As all of this is happening, the data that is decompressed in the RAM is played continuously; col. 5 lines 60 – 67). Thus these first portions are played back through the audio output jack shown in Fig. 1. This reads on the limitation of wherein said output device outputs the first portions of the at least one of the plurality of selections of the media data from memory (i.e. the initial amount of data used to break the low water mark is played continuously from the RAM).

After this, the play control logic (executed by the CPU) determines if the data in the RAM falls below the "low water mark", if it does, it retrieves more data (portions) in order to keep the system above the threshold. As a note, to initialize all of this, it is required that a user select a song to be played by adding it to a play list. Thus this

teaches wherein a user selects a particular one of said plurality of selections (i.e. adding one of the songs out of a plurality stored on the hard disk to be played) said processor retrieves a remaining portion of the particular one of said plurality of selections (i.e. the play control logic, executed by the CPU, monitors the threshold and retrieves data (portions) as is necessary to maintain continuous playback.

As the addition data (portions) is retrieved, the data is still being played back continuously through the audio output jack disclosed in Fig. 1. As such, this reads on the limitation of said output device outputs the portion and remaining portion and remaining portion the particular one of said plurality of selections.

All of the above is disclosed in the Power Conserving Play Logic section disclosed by Birrell.

Applicant statement that "Birrell merely teaches that the RAM 108 is replenished when the amount of data in RAM 108 falls below a predetermined threshold" is held to be true. However, as shown above, the amount of data is continuously monitored and data is transferred dependent upon this. The data is not transferred continuously but rather in portions (as is claimed by Applicant). As such the argument is not persuasive and the rejection stands.

Applicant further alleges:

> "Furthermore, as illustrated in Figure 3 of the present application, read channel 341 "encodes the write data under the control of DSP/MPU 343, and supplies the encoded write data to preamplifier 232." (present application, page 8, lines 18-20) Read channel 341 also "decodes the read data under the control of DSP/MPU 343, and generates read data." (present application, page 8, lines 28-29) In contrast to the feature of a

> read channel configured to read the compressed media data from the storage device, it is respectfully noted that Birrell merely teaches one or more internal buses 134 for interconnecting the elements illustrated in Figure 1 of Birrell."

Examiner respectfully disagrees with this allegation. As a first matter, Examiner reminds Applicant that limitations from the specification are not to be read into the claim limitations in particular that the read channel "encodes the write data under the control of DSP/MPU 343, and supplies the encoded write data to preamplifier 232." and "decodes the read data under the control of DSP/MPU 343, and generates read data."

Secondly, per MPEP 2111, "Claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving their 'broadest reasonable interpretation'", "...words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification", "One must bear in mind that especially in nonchemical cases, the words in a claim are generally not limited in their meaning by what is shown or disclosed in the specification.", "It is only when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language.", and finally, "Interpretation of descriptive statements in a patent's written description is a difficult task, as an inherent tension exists as to whether a statement is a clear lexographic definition or a description of a preferred embodiment."

It is respectfully submitted that Applicant has not explicitly defined the term "read channel" in the specification. Rather, the portion that Applicant points to in order to differentiate the claimed read channel from the Birrell reference is merely a description

of a preferred embodiment. Thus the limitation of a "read channel" must be given its broadest reasonable interpretation in light of the specification given its plain meaning. Applicants various figures show interconnections between components through a solid line. Examiner maintains the position that an electrical connection for sending data between components (i.e. a parallel, serial, or any other type of bus connecting computer components) as disclosed by Birrell is in fact a read channel in its broadest interpretations.

Applicant further alleges:

> "It is respectfully submitted that neither Birrell nor Gadre teach or suggest the feature of an integrated circuit to control a media player/recorder, in which the integrated circuit includes a programmable processor that is programmed as a digital signal processor, a storage controller, and a read channel, as recited in, for example, independent claim 20 of the present application." and;
>
> "As discussed previously, Birrell does not teach or suggest a programmable processor that is programmed as both a storage controller and a digital signal processor to decompress the compressed media data stored in a memory. Additionally, it is noted that the Patent Office acknowledges that Birrell "does not disclose these elements within the processor as a single integrated circuit." (Office Action, page 11)."

Applicant substantiates this argument by stating:

> "Thus, Gadre merely teaches the integration of DSP and DSP-related functions into an integrated device. Contrary to the assertions of the Patent Office, it is respectfully submitted that nowhere does Gadre teach or even suggest the feature of an integrated circuit comprising a programmable processor that is programmed as a digital signal processor to control a storage device, a storage controller responsive to the digital signal processor, and a read channel responsive to the storage controller to read the compressed media data from the storage device. Consequently, it is respectfully submitted that Gadre does not address the above-identified deficiencies of Birrell."

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, Applicant is arguing that the combination does not teach the limitations because 1.) Birrell does not disclose the various elements within the processor as a single integrated circuit, and 2.) Gadre teaches the integration of DSP functions into an integrated device, but nowhere does Gadre teach , or even suggest the feature of an integrated circuit comprising a programmable processor that is programmed as a digital signal processor to control a storage device, a storage controller responsive to the digital signal processor, and a read channel responsive to the storage controller to read the compressed media data from the storage device.

It is respectfully submitted that Applicant has not considered the combination of the references and is instead attacking the references alone. As shown in the rejection, Birrell discloses the various components, the CPU, DSP, storage controller, and read channel, but does not disclose them integrated into a single processor on an integrated circuit. Again, Gadre teaches implementing multiple DSP functions on an integrated circuit device. Thus applying the CPU, DSP, storage controller, and read channel into the single integrated circuit as taught by Birrell would read upon the claimed limitations. The components taught by Birrell all deal with the playback of digital audio. Gadre discloses that a number of DSP functions used in A/V components (including decoding)

> "Rather, according to M.P.E.P. 2142, "[t]o reach a proper determination under 35 U.S.C. 103, . . . impermissible hindsight must be avoided and the legal conclusion [of obviousness] must be reached on the basis of the facts gleaned from the prior art." Furthermore, according to M.P.E.P. j 2143.01, "[t]he mere fact that references can be modified does not render the resultant combination obvious unless the prior art also suggests the desirability of (such modification." [citing In re Mills, 916 F.2d 680, 16 U.S.P.Q. 2d 1430 (Fed. Cir. 1990)]. Since the Patent Office has offered no proper support or motivation for combining the references, it is respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon "knowledge gleaned only from applicant's disclosure." [see M.P.E.P. 2145 Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper."

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Examiner respectfully submits that because Gadre explicitly discloses that the invention is concerned with reducing size and power requirements by reducing the number of components through integration into a single chip, there is sufficient evidence to implement Birrell's components in this manner without using hindsight.

Applicant further alleges:

> "It is respectfully submitted that Yanigihara does not teach or even suggest the feature of a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in the storage device, and a digital signal processor to decompress the compressed media data stored in memory. Contrary to the assertions of the Patent Office, nowhere does Yanighara teach or suggest the feature that the digital signal processor determines a compression format of the media data stored in memory, wherein the process for decompressing compressed data is retrieved from the storage device in accordance with the determined compression format, and wherein the media data is decompressed in accordance with the retrieved process, as recited in, for example, dependent claim 8 of the present application. It is noted that the Patent Office has not even attempted to proffer a citation to Yanighara that evinces such a feature. [see Office Action, page 15]. Therefore, Yanagihara does not address the above-identified deficiencies of Birrell."

Examiner respectfully disagrees with this allegation. Yes, Yanighara does not disclose a programmable processor, however, it has been shown in the previous office action that Birrell does (see Fig. 1). In addition, Yanagihara discloses a controller that determines the compression of the speech data (such as one of MPEG-Audio, Dolby, AC-3 and Linear PCM); col. 2 lines 6 – 16 which Applicant has cited. When taken in combination, the processor disclosed by Birrell will be modified to operate with this feature. Thus it is disclosed, when taken in combination, that a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in the storage device, and a digital signal processor to decompress the compressed media data stored in memory.

Applicant further alleges:

> "Additionally, it is respectfully submitted the Patent Office has provided no reference, citation or other actual evidence, in Birrell, Yanagihara or otherwise, for combining the references in the manner

> With respect to the combination of Birrell with Gadre, the Patent Office asserts that a skilled artisan would have been motivated to implement the elements of Birrell on a single chip in the manner taught by Gadre "to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements." (Office Action, page 11 - page 12) It is respectfully submitted that none of the references relied upon by the Patent Office suggest that the portable audio player of Birrell would be improved by the integration of DSP and DSP-related functions onto the same integrated circuit device as taught by Gadre. The Patent Office's alleged motivation is simply a bald, naked assertion, completely unsupported by any actual, specific, evidence. Consequently, it is respectfully submitted that the Patent Office has not established a prima facie case of obviousness."

Examiner respectfully disagrees that a prima facie case of obviousness has not been made. Applicant is alleging that there is a lack of actual, specific evidence. The reasons for combining "to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements" are explicitly stated in Gadre in col. 1 lines 55 – 60. Birrell's invention is drawn to a portable audio player. It is well known that it is desirable to have a smaller device with lower power requirements in a portable device. In fact, Birrell is actually geared to reducing the power consumption of the portable device in other manners. The desirability of reducing size and power requirements is a notoriously well known in the art of portable devices. Thus it would be reasonable to think that one of ordinary skill in the art reviewing the Birrell and Gadre Patents would be interested in reducing the size and power requirements of Birrell using Gadre's implementation.

Applicant further alleges:

> suggested by the Patent Office. Accordingly, it is respectfully submitted that the Patent Office has failed to establish prima facie case of obviousness. Rather, it is respectfully submitted that the rejection based on obviousness is wholly and completely founded upon "knowledge gleaned only from applicant's disclosure." [see M.P.E.P. 21452] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper."

Examiner respectfully disagrees with this allegation. First, it is notoriously well known in the art that multiple compression techniques exist in the field of digital audio. Thus it would be desirable to enable a player such as Birrell's to function and playback audio encoded in any of the various compressions. Applicant is suggesting that the combination is based on hindsight. However, Examiner cannot find any passage in Applicants specification in which Applicant suggests why it is desirable to have a player to be able to decode multiple compression schemes. As there is no such passage, the argument is not persuasive.

Applicant further alleges:

> Applicant traverses the Official notice taken that "it would have been obvious to one of ordinary skill in the art at the time of the invention to store procedures in the ROM instead of in the storage device"

As an initial matter, the cited phrase from the Office Action contained a typographical error. The terms ROM and storage device are transposed, the phrase should read "it would have been obvious to one of ordinary skill in the art at the time of the invention to store procedures in the storage instead of in the ROM" as is claimed by Applicant (i.e. storage device stores a process for decompressed compressed data...).

can be integrated onto a single device. All of Birrell's components are components that operate on a digital signal, to be exact, the digital decoding of a digital signal, and thus it would be obvious to implement them onto a single integrated circuit as taught by Birrell. Thus when taken in combination, the single components taught by Birrell implemented on a single integrated circuit do in fact read upon the claimed limitations contrary to Applicant's allegations.

Applicant further alleges:

> "For example, it is noted that the Patent Office acknowledges that Birrell "does not disclose these elements within the processor as a single integrated circuit." (Office Action, page 11) As discussed previously, it is also respectfully submitted that Birrell does not teach the feature of a read channel configured to read data from the storage device, as recited in, for example, dependent claim 5 of the present application. Furthermore, it is respectfully submitted that nowhere does Gadre teach or even suggest the feature of a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in a storage device and a digital signal processor to decompress the compressed media data stored in a memory. Therefore, Gadre does not address the above-identified deficiencies of Birrell."

Again, It is respectfully submitted that Applicant has not considered the combination of the references and is instead attacking the references alone. For the same reasons stated above regarding the combination of Birrell in view of Gadre, this argument is not persuasive.

Applicant further alleges:

> "It is respectfully submitted that the Patent Office has made no showing of a motivation to combine based on actual, specific, evidence.

Secondly, Examiner maintains it is well known in the art to store data (such as control programs) on a hard disk instead of a ROM. As further evidence, Ito (U.S. Patent 6,671,343) discloses "the hard disk of the HDD 11 may store, as described above, a control program to be executed by the CPU. If the ROM does not store the control program, it is possible to cause the CPU to operate just in the same way as when the ROM stores the control program by storing the control program in the hard disk before hand and causing the CPU to read them into the RAM." Col. 4 lines 30 – 40. As such, the Official Notice is deemed proper as the statement has been shown to exist in prior art. Furthermore, Ito even offers motivation as to why one would use the hard disk instead of the ROM "This makes it easy to add a control program or upgrade the same".

Applicant further alleges:

> "Dependent claims 10, 19, 26, 37 and 46 variously depend from independent claims 1, 11, 22, 38 and 38, and are, therefore, patentably distinguishable over the combination of Birrell and Terui for at least those reasons stated above with regard to independent claims 1, 11, 22, 38 and 38. For example, it is respectfully submitted that Terui does not teach or even suggest the feature of a programmable processor that is programmed as both a storage controller to retrieve the compressed media data stored in a storage device and a digital signal processor to decompress the compressed media data stored in a memory."

This argument is not persuasive for the same reasons stated above regarding claim 1.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 172 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 172 claims a computer program with no practical application. See the above arguments for further details.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 4, 6, 9, 11 – 13, 15, 18, 22, 23, 28 – 31, 33, 36, 38 – 40, 42, 45, 97, 98, 100, 101, 104 – 107, 109, 110 and 169 – 172 are rejected under 35 U.S.C. 102(e) as being anticipated by Birrell (U.S. Patent 6,332,175).

Regarding **Claims 1, 22 and 28**, Birrell discloses:

A media player/recorder (title) comprising:

a storage device to store compressed media data (i.e. a disk controller; Fig. 1 element 104);

a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16);

a memory to store the compressed media data retrieved by said programmable processor (i.e. a RAM; Fig. 1 element 108);

wherein said programmable processor is also programmed as a digital signal processor to decompress the compressed media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

an output circuit to output the decompressed media data from said programmable processor (i.e. an audio output jack; Fig. 1 element 130).

Regarding **Claims 2, 12, 29 and 39**, in addition to the elements stated above regarding claims 1, 11, 28 and 38, Birrell further discloses:

wherein said memory comprises a dynamic access memory (i.e. a RAM; Fig. 1 element 108).

Regarding **Claims 3, 13, 23, 30 and 40**, in addition to the elements stated above regarding claims 1, 11, 22, 28 and 38, Birrell further discloses:

an interface responsive to said processor to communicate with an external device (i.e. a computer jack; Fig. 1 element 132).

Regarding **Claims 4 and 31**, in addition to the elements stated above regarding claims 1 and 28, Birrell further discloses:

wherein said digital signal processor is configured to control said storage device and to decompress the media data stored in said memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Regarding **Claims 6, 15, 33 and 42**, in addition to the elements stated above regarding claims 4, 11, 31 and 38, Birrell further discloses:

wherein said digital signal processor comprises a decoder to decompress the media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Regarding **Claims 9, 18, 36 and 45**, in addition to the elements stated above regarding claims 3, 13, 30 and 40, Birrell further discloses:

wherein the media data is transferred from the external device through said interface for storage on said device (i.e. a jack for downloading compressed audio data onto the hard disk; col. 4 lines 25 – 28).

Regarding **Claims 11 and 38**, Birrell discloses:

A media player/recorder (title) comprising:

a storage device to store compressed media data (i.e. a disk controller; Fig. 1 element 104);

a programmable processor which is programmed as a storage controller to retrieve the compressed media data stored in said storage device (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16);

wherein said programmable processor is also programmed to decompress the compressed media data stored in said storage device (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

an output circuit to output the decompressed media data from said programmable processor (i.e. an audio output jack; Fig. 1 element 130),

wherein said programmable processor comprises a digital signal processor (i.e. the processor operates on digital audio and therefor processes a digital signal), and

uses the same circuit to control said storage device and to decompress the compressed media data stored in memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25.

Regarding **Claims 97, 100, 104, 106 and 109**, in addition to the elements stated above regarding claims 1, 11, 22 and 28, Birrell further disclose:

wherein said storage device comprises a hard disk (Fig. 1 element 104).

Regarding **Claims 98, 101, 105, 107, 110**, in addition to the elements stated above regarding claims 1, 11, 22 and 28, Birrell further discloses:

wherein said storage device is selected from the group consisting of optical disk, magnetic disk, CD-ROM, CDR, and CDRW (i.e. a hard disk (*magnetic*); Fig. 1 element 104).

Regarding **Claims 169 – 172**, Birrell discloses:

A media player/recorder (title and abstract): comprising:

a storage device to store media data (disk 104; Fig. 1), the media data comprising a plurality of selections (i.e. multiple songs on the disk);

a memory (RAM 108; Fig. 1)

a processor to transfer first portions of at least one of the plurality of selections of the media data from said storage device to said memory (i.e. the system contains multiple control programs executed by the data processor, on being a play procedure; Fig. 1 element 102 and col. 5 lines 5 – 33; the play control logic, which is part of the play procedure as shown in Fig. 2, transfers data from the disk to RAM; col. 6 lines 14 – 16; the play control logic maintains sufficient portions of data in the RAM to ensure that there is no break in the playback; col. 6 lines 5 – 28);

an output device (audio output jack 130; Fig. 1);

wherein said output device outputs the first portions of the at least one of the plurality of sections of media data form the memory (i.e. as the audio data is played back, the portions present in RAM are read out to the audio out jack; col. 6 lines 5 – 28);

wherein when a user selects a particular one of said plurality of selections, said processor retrieves a remaining portion of the particular one of said plurality of selections and said output device outputs the portion and remaining portion the particular one of said plurality of selections (i.e. user selections are added to a play list, which is a queue of tracks to be played by the system; col. 5 lines 1 – 3 and as the audio data is played back, the portions present in RAM are read out to the audio out jack; col. 6 lines 5 – 28).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 16, 34 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175).

Regarding **Claims 7, 16, 34 and 43**, in addition to the elements stated above regarding claims 6, 15, 33 and 42, Birrell further discloses:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

Birrell does not explicitly discloses storing the process on the storage device as claimed in claim 1. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Claims 5, 14, 20, 32, 41, 47, 99, 102, 103, 108, 111 and 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253).

Regarding **Claims 5, 14, 32 and 41**, in addition to the elements stated above regarding claims 1, 11, 28 and 38, Birrell further discloses:

said digital signal processor to control said storage device and to decompress the media data stored in said memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16; and the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25);

said storage controller responsive to said digital signal processor (i.e. a disk controller; Fig. 1 element 106); and

a read channel to read data from said storage device and response to said storage controller (i.e. the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements together in Fig. 1).

Birrell does not disclose these elements within the programmable processor as a single integrated circuit.

Gadre discloses a significant need as developed for integrating the functionality of multiple DSP chips onto the same integrated circuit. Two primary integration approaches are often used to implement multiple DSP functions on a given integrated

circuit device, a hardware and a software approach; col. 1 lines 53 – 67 and col. 2 lines 1 – 34.

Applying this teaching to the Birrell reference would create a processor comprising a single integrated circuit comprising the elements stated above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement these elements onto a single chip such as Birrell's processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; see Gadre, col. 1 lines 56 – 80.

Regarding **Claims 20 and 47**, Birrell discloses

An integrated circuit (CPU) to control a media player/recorder having a storage device having stored thereon compressed media data (Hard Disk), a memory (RAM) and an output circuit (Audio output jack), said integrated circuit comprising:

a programmable processor that is programmed as:

a digital signal processor to control the storage device (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16)

a read channel responsive to said storage controller to read the compressed media data from the storage device (i.e. the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements

together in Fig. 1 and the CPU uses the play procedure to command the storage device to use the read channel to transfer the data),

wherein said digital signal processor transfers the compressed media data read by said read channel to the memory (i.e. the play control logic, which is part of the play procedure as shown in Fig. 2 and controlled by the processor, transfers data from the disk to RAM; col. 6 lines 14 – 16 and the CPU and the disk controller are coupled to the same bus allowing the transfer of audio data; the bus coupling the elements together in Fig. 1),

wherein said digital signal processor comprises a decoder to decompress the compressed media data stored in said memory (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25); and

converts the media data decompressed by said decoder to an analog signal (i.e. a D/A converter; Fig. 1 element 126); and

a storage controller responsive to said digital signal processor (Fig. 1 element 106).

Birrell does not explicitly disclose that the digital signal processor converts the media data decompressed by said decoder to an analog signal or the storage controller (Fig. 1 element 106) is part of the programmable processor.

Gadre discloses a significant need as developed for integrating the functionality of multiple DSP chips onto the same integrated circuit. Two primary integration approaches are often used to implement multiple DSP functions on a given integrated

circuit device, a hardware and a software approach; col. 1 lines 53 – 67 and col. 2 lines 1 – 34.

Applying this teaching to the D/A converter, storage controller and CPU of the Birrell reference would create digital signal processor that converts the media data decompressed by said decoder to an analog signal and a digital signal processor contains a storage controller responsive to said digital signal processor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement these elements onto a single chip such as Birrell's processor in the manner as taught by Gadre. One would have been motivated to do so in order to achieve greater performance, lower design and manufacturing costs, reduced component size, and reduced power requirements; see Gadre, col. 1 lines 56 – 80.

Regarding **Claims 99, 102, 103, 108, 111 and 112**, in addition to the elements stated above regarding claims 5, 14, 20, 32, 41 and 47, Birrell further discloses:

wherein said storage device comprises a hard disk (i.e. a hard disk; element 104 Fig. 1), and

wherein said storage controller comprises a hard disk controller (i.e. disk controller 106 Fig. 1).

Claims 8, 17, 25, 35 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Yanagihara (U.S. Patent 6,233,393).

Regarding **Claims 8, 17, 35 and 44**, in addition to the elements stated above regarding claims 7, 16, 34 and 43, Birrell further discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Regarding **Claim 25**, in addition to the elements stated above regarding claim 22 Birrell further discloses:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

Birrell does not explicitly discloses storing the process on the storage device as claimed in claim 21. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with

less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Furthermore Birrell discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different

compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Claims 21 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Gadre (U.S. Patent 6,308,253) in further view of Yanagihara (U.S. Patent 6,233,393).

Regarding **Claims 21 and 48**, in addition to the elements stated above regarding claims 20 and 47, the combination further discloses in Birrell:

storing a process for decompressing compressed data for a selected compression format (i.e. a ROM that stores a decompression procedure for decompressing compressed audio data; col. 5 lines 22 – 44).

The combination does not explicitly discloses storing the process on the storage device as claimed in claim 21. However, Examiner takes official notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to store the procedures in the ROM instead of in the storage device. Both the ROM and the disk are non-volatile memory devices and therefore are suitable to store system procedure programs. It would be an obvious variation to store the programs instead on the disk. One would have been motivated to do so in order to manufacture the Birrell player with

less parts and thus making it less costly as the ROM would not be required if the programs were stored instead on the disk.

Furthermore Birrell in the combination discloses:

wherein the processor for decompressing compressed data is retrieved from said storage device (i.e. the CPU uses a stored decompression procedure to decompress; col. 5 lines 20 – 25); and

wherein said decoder decompresses the media data in accordance with the retrieved process (i.e. the processor includes a decompression procedure for decompressing compressed audio files; col. 5 lines 20 – 25).

Birrell does not explicitly disclose wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format.

Yanagihara discloses:

wherein said digital signal processor determines a compression format of the media data stored in said memory and retrieving the process in accordance with the determined compression format. (i.e. the general controller determines the compression such as one of MPEG audio, Dolby AC-3, and Linear PCM and sets a decoder in accordance with the data received).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Yanagihara's general controller on the modified CPU of Birrell in order to determine a type of media compression. One would have been motivated to do so to enable the player to be able to play a number of various audio files in different

compression formats. With the lack of a standard compression technique in digital audio encoding, multiple formats have been developed (i.e. mp3, AAC, ADPCM, windows media audio, real audio, etc...) and it would have been desirable to have a player such as Birrell's to be enabled to play the different media.

Claims 10, 19, 26, 37 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175) in view of Terui (U.S. Patent 5,903,871).

Regarding **Claims 10, 19, 26, 37 and 46**, in addition to the elements stated above regarding claims 4, 11, 22, 31 and 38, Birrell does not disclose an input circuit to receive media data, wherein said digital signal processor comprises an encoder to compress the received media data, and wherein the compress[ed] media data received by said input circuit is stored on said storage device.

Terui discloses:

an input circuit to receive media data, (i.e. a microphone for converting voice to an electric signal and an analog to digital converter for converting it to a digital signal; col. 3 lines 4 – 12);

wherein said digital signal processor comprises an encoder to compress the received media data (i.e. the digital signal is compressively transformed; col. 3 lines 25 – 29); and

wherein the compress[ed] media data received by said input circuit is stored on said storage device. (i.e. recording the voice data to the recording media; col. 4 lines 50 – 60).

It would have been obvious to one of ordinary skill in the art to add the features of Terui to the elements of the combination in order to integrate a portable voice recorder into Birrell's portable player. One would have been motivated to do so in order to enhance the operation of the player to provide a voice recording and reproducing apparatus which can easily store and manage a voice file (Terui col. 1 lines 48 - 50).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 10 of copending Application No. 10/184,302. Although the conflicting claims are not identical, they are not patentably distinct from each other because any

such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 5, 20 - 23, 38 - 41, 56 - 59 and 74 - 85 of copending Application No. 10/184,299. Although the conflicting claims are not identical, they are not patentably distinct from each other because any such portable device can be carried anywhere, for example, it can be transported in a briefcase, pocket, and vehicle to name a few. Any such portable media device as discussed above are well known to be connected and have operation in a vehicle, even if it is merely to connect for power.

Claims 1 - 23, 25, 26, 28 - 48 and 97 - 112 are provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1 - 10, 26 - 34, 50 - 53, of copending Application No. 10/184,505. Although the conflicting claims are not identical, they are not patentably distinct from each other because the interface is inherently taught via input and output circuits are being applied wherein data is being directed to and from the system. Various types of interfaces are well known depending on port capabilities and necessities to the system environment.

This is a provisional obviousness type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

acf

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SUPERVISORY PATENT EXAMINER